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ABSTRACT

Most at-risk students do not know how to read, speak, or write, and those who know how, frequently elect not to. The problem for educators is thus two-fold, motivating the student to become engaged in the literary process and helping the teacher to engender such engagement. Music may be one way of fostering this engagement. A literature review focused on the effects of music on reading, oral language, and writing abilities of at-risk students with specific aims to identify and describe a coherent body of literature to indicate how music should be used in classrooms to facilitate language skill development. After reviewing three types of articles (theoretical articles, research reports, and essays of practical classroom application), it appears that the theories that justify the use of music in reading and language arts activities are not firmly backed by research. The research itself was inconclusive but did not suggest that music has the potential for affecting reading rate and writing fluency. Further research should examine the critical variables involved in music's effect on students' literary development in order that firm conclusions about its impact on this process can be made. (Thirty-five references are attached.) (PRA)

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THE EFFECTS OF MUSIC ON READING, ORAL LANGUAGE, AND WRITING ABILITIES:

A Review of Literature

(approximately 7400 words)

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THE EFFECTS OF MUSIC ON READING, ORAL LANGUAGE, AND WRITING ACTIVITIES:

A Review of Literature

Abstract

Most at-risk students do not know how to read, speak or write, and other who know how frequently elect not to. The problem for educators is thus two-fold, motivating the student to become engaged in the literary process and helping the teacher to engender such engagement. Music may be one way of fostering this engagement. This literature review focuses on the effects of music on reading, oral language, and writing abilities with specific aims to identify and describe a coherent body of literature to indicate how music should be used in classrooms to facilitate language skill development. Three general types of articles were reviewed: theoretical articles, research reports, and essays of practical classroom application. The theories that justify the use of music in reading and language arts activities do not appear to be firmly backed by research. The research itself is inconclusive but does suggest that music has the potential for affecting reading rate and writing fluency. Further research should examine the critical variables involved in music's effect on students' literary development in order that firm conclusions about its impact on this process can be made.

The Problem

As the decade of the 1990s unfolds, educators find themselves faced with problems even more complex than those of the 1980s. The rhetoric of the 1980s had

seemed to exhort teachers and administrators to provide society with competitive and technologically sophisticated citizens by effecting educational excellence through academic reform and more demanding graduation requirements. In taking that challenge seriously, educators were probably instrumental in alienating as many students as they helped, just as the post-Sputnik reforms of the 1960s exacerbated the already growing problem of high school dropouts (Donlan, 1990). To recite the ubiquitous societal problems that have affected a generation of disaffected, disenfranchised, and disengaged students would be as bromidic as to discuss the causes of poverty, racism, and drug addiction. In fact, any question concerning the status of modern education that begins with <u>why</u> is necessarily ephemeral. The question educators should be addressing is <u>what now</u>.

That today's classrooms contain legions of students who may not eventually graduate from high school is ironic since most American adults no doubt perceive themselves as belonging to a modern, literate, informed industrial society at the same time that their children behave like products of a third-world economy. Among educators, however, the situation has become so grave that a term has been coined to describe the situation: "students at risk." According to Slavin and Madden (1988), a student at risk "is one who is in danger of failing to complete his or her education with an adequate level of skill" (p. 4). Graham (1981) indicates that one of the chief contributors of "at riskedness" is the lack of equal access to effective literacy development and that poor children and minority children are particularly at risk in this regard. Given the increasingly large number of potential dropouts in America's schools, a pessimist could readily predict a future society of non-readers, non-communicators, and non-thinkers.

Nor is it the problem that most at-risk students do not know how to read, speak, or write. Rather, as Sofo (1988) notes, they frequently elect not to, primarily because they perceive their self-expression not to be valued in the adult world. The two-fold problem, then, is one of motivation--from the student's point of view how to become engaged in the literacy processes and from the teacher's point of view how to engender such engagement.

As educators advocated in the 1960s, researchers and theorists are suggesting that students must be reached at their respective levels. Interestingly, the term relevance is beginning to reappear in educational journals. In reviewing research on effective teaching and learning strategies for at-risk students, Slavin and Madden noted that traditional methods, including most remedial programs, are not effective. Sofo suggests that dealing with at-risk students involves adapting teaching styles so that at-risk students can be motivated to enjoy learning as well as using a variety of media for communication and relating school learning to wider learning.

The problem, then, is for the teacher to create an environment in the classroom where fluency in reading, speaking, and writing can be developed to the point that students can learn to enjoy learning. Constructive research can be done in investigating those classroom variables that affect that very fluency. Since media, particularly music, seem to play an important role in students' lives, would it not be productive to see whether the use of music in the classroom might be used to positively affect reading, oral language and writing abilities?

The Focus of This Review

The purpose of this review is to identify and describe what hopefully would be a coherent body of literature to indicate how music could be used in elementary, secondary, and college level classrooms to facilitate the development of reading, oral language, and writing abilities. For the purposes of the review, music was broadly defined to include (1) having students listen to vocal and orchestral music, (2) having music performed either vocally or instrumentally in the classroom, (3) using musical text for the purposes of gaining insight into general reading, writing, and speaking. Three types of literature were sought. First the reviewers attempted to locate theoretical articles that might put forth well-reasoned explanations of why music in the classroom could improve student abilities and offer hypotheses for researchers to test. Second, the reviewers located research studies where music was used as an independent variable to affect reading, oral language, or writing abilities. Third, the reviewers searched for articles of "practical application," which were teachers' descriptions of how they used music in their classrooms to affect student abilities. What the reviewers hoped to find were clear connections among three types of literature, specifically that theoretical articles would effect specific research that would then be adapted for use in the classroom.

Literature Search Procedures

In conducting the literature search, the reviewers initially consulted The Review of Educational Research. In surveying articles from 1950 - 1989 under the general category of "language arts and fine arts," the reviewers were unable to locate articles specifically related to the effects of music on reading or language arts abilities. A review of literature in another journal (1983) was, however, located. This review

focused on the effects the arts had upon reading achievement. Studies and theoretical articles focusing on visual media and music's affect upon reading achievement were included. This review stated that "teaching reading through the arts enables students, particularly unmotivated students , to learn reading skills through music, theater, puppetry, filmmaking, photography, drawing, painting, crafts, printmaking, and dance." Studies included in this review indicated that the use of the arts in reading instruction results in the improvement of students' self-concepts, and this, in turn, lead to further improvement in reading. This review reported 33 articles, six of which were used in this review.

The reviewers conducted a computer search from the Educational Resources Information Center (ERIC) database. Because the descriptors of "music-and-reading" and "music-and-language arts" yielded well over 500 citations, a variety of more specific descriptors closely and distantly related to the topic were used. Some of the descriptors used were "spontaneous writing," "motivation and writing," "stimulus writing," "creative writing," "reading instruction," "reading achievement," and "reading efficiency." A total of 18 descriptors was used. In addition, these different descriptors were combined in various ways in hopes of obtaining a larger number of specific articles related to the topic. For example, one combination of descriptors used was "creative writing" and "music stimulus." The search yielded a total of 58 articles, 16 of which were located and 7 of which were actually used in the review. The remaining 42 articles were either irrelevant to the topic or in journals unable to be accessed at the libraries where the literature search was being conducted.

After obtaining these 16 articles, an archival method was used in selecting additional articles. Twenty-six articles were located but only 13 were used in this literature review. The remaining 13 articles were not included because they were either identical to articles previously obtained or were irrelevant to the topic.

Next, reviewers consulted several indexes. Although furnished by ERIC, the Resources in Education Index 1970 - 1989 was used since the reviewers believed that additional articles might be obtained by searching through the various headings provided by the Index. Descriptors used included the following: (1) writing composition, (2) creative writing, (3) creative development, (4) language arts, (5) language development, (6) writing instruction and (7) writing improvement. A total of 25 descriptors was used. Fifteen titles of articles were obtained, 7 were located, but only one was used in this literature review. The six articles that were discarded primarily dealt with instructional strategies for teaching music in the content areas or the use of language arts and reading skills in teaching music skills and concepts rather than the reverse.

The Current Index to Journals in Education (CIJE) was also referred to. Descriptors used included (1) writing abilities, (2) writing contexts, (3) writing quality, (4) writing strategies, (5) reading achievement, (6) creative development, (7) creative teaching, and (8) reading instruction. A total of 27 descriptors were used. The search yielded no additional literature since the most relevant articles had already been obtained through the ERIC computer search.

The Education Index was also utilized to locate articles written prior to 1969. Descriptors used were (1) writing, (2) reading, (3) creative ability, (4) creative thinking, (5) language arts, and (6) language development. Seven articles were obtained but none were judged to be related to the topic.

Finally, the reviewers consulted the Psychological Subject Index 1980-1988, using the following descriptors: (1) writing skills, (2) language skills, (3) written communication, and (4) creativity. No literature was found that was related to the topic.

Literature Selected for Final Data Base

The literature selected for the literature review was clustered according to three themes: (1) Reading and music, (2) oral language and music, and (3) writing and music. Under these themes, the articles were subdivided according to type of article. Three general categories of articles were used: (1) theoretical articles, (2) research reports, and (3) essays of practical classroom application. Theoretical articles are papers in which the author develops a particular theory or has drawn upon existing research in order to advance a particular theory. In research reports researchers investigate cause-and-effect relationships between manipulated conditions and measured outcomes. Essays of practical classroom application consists of those articles which provide specific curricular or instructional strategies, practices, or other ideas which can be utilized by educators in a classroom setting. These articles may or may not discuss the theory or research on which these suggestions are based. Investigators hoped that the literature would show that theory, research, and practice would be interrelated.

Results

Reading and Music

Theoretical Articles. Theoretical literature primarily discusses the ways in which music can be used as an alternative method for developing reading readiness skills and teaching basic reading skills to students reading at the preschool, kindergarten, and elementary levels. However, the theories have been regarded by critics as being unfounded and "quasi-theoretical."

According to McDonald (1975), reading readiness skills that can be developed and enhanced through classroom music experiences, specifically singing experiences, include auditory discrimination, oral, visual and/or listening skills. Auditory discrimination skills affected by music include skills such as correct pronunciation of vowel sounds, troublesome letter groups and initial or final consonants of words. Oral skills that involve broadening of context meaning through music help the development of discovery of common meaning of words, creative experiences with sentence and phrase structure, and an introduction to grammar. Visual skills enhanced through music experiences include sight vocabulary, knowledge of letter names, and introduction to writing as a form of communication. Finally, music assists the development of listening skills, such as the increase of a listening attention span.

Yaakob (1973), like McDonald discusses ways in which singing experiences provide opportunities for developing reading readiness skills such as auditory discrimination, visual discrimination, direction, imitation, interpretation, voice expression, and listening.

Cohen (1974) points out that reading readiness skills can also be developed by having children move or dance to music. He notes that experiences with movement to a particular song stimulates a vivid sense of drama and excitement, leads to better reading and comprehension, increases auditory awareness, and fosters concept development.

Lloyd (1978) holds that musical experiences can give young children opportunity to develop the auditory and visual skills needed for language reading. Lloyd believes that kindergarten and first grade students who have not been involved in a regular music program may suffer developmental lags when beginning to read. From her observations, Lloyd has charted musical activities that can help beginning readers develop and maintain reading skills.

O'Bruba (1987) holds that the use of music in the teaching of reading at the elementary level may motivate and build the ability of students, whether or not they are musically talented or intellectually above-average. He believes that music and reading are similar in several ways: they both have a symbol structure which can be decoded into sounds which are meaningful, they both use a left-to-right framework, and they both require visual and auditory discrimination. Because of these similarities, music can be used in beginning reading programs for stimulation and inspiration.

These various articles set forth personal theories as to why music helps children learn to read. However, Groff (1977) maintains that most articles of this type lack any citation to research evidence as proof of the claims that are made. He states that this "theoretical" literature provides merely an opinion or conjecture. In addition, Groff

states that the assumption that words from song lyrics provide opportunities for vocabulary development for beginning reading instruction is contradicted by reading research. Furthermore, the notion that music can develop a general attitude or a mental faculty for listening, which in turn can be called upon by the child as he learns to read words, has no support from research in reading or in cognitive psychology. Groff states that it has not been proved that good listening skills gained in school music situations or instruction will transfer into a students reading words. Investigators concurred with Groff's general assertions, finding it particularly problematic that theoretical articles written subsequent to his critique appear to have the very weaknesses he describes.

Research Reports. Several studies were done from the 1930s through the 1950s on music's distracting effect on reading. Most of this work was documented in psychology or educational psychology journals. The results of these studies are contradictory and inconclusive. Fendrick (1937) found that music distracted students' reading, while Henderson, Crews, and Barlow (1945) found that only certain kinds of music was distracting, and Freeburne and Fleischer (1952) found that music was not significantly distracting to reading performance. More current research done with learning disabled children indicates that music used in classroom situations can facilitate reading achievement.

Fendrick (1937) conducted a study to investigate the influence of music distraction upon reading efficiency. Students from two consecutively taught sections in the writer's general psychology course served as subjects. Each section was given a uniformly prepared assignment to study for 30 minutes as soon as the class had been

assembled. One group was exposed to recorded lively semi-classical music, while the other group was free from any musical distraction. The reading material was a single-spaced 12-page mimeographed chapter extracted from an educational psychology text. A list of 60 true-false questions from chapter tests accompanying the text was utilized to determine the reading efficiency of all students. Fifteen minutes were allotted for students to answer the test items. Scores were correlated with intelligence scores, and percentage ranks. Results indicated that the nondistracted group studied more efficiently. In addition, evidence indicated that the music seriously impaired students functioning at higher intellectual levels. However, Fendrick stated that more investigation is needed in this area.

Like Fendrick, Henderson, Crews, and Barlow (1945) conducted an experimental study to determine whether or not reading efficiency is influenced when music is used as distraction. However, these researchers were investigating whether there is any difference in the relative influence of popular versus classical music. Fifty freshmen women were divided into three equally matched groups on the basis of psychological examination scores (Thurstone, 1942) and reading test scores (Nelson Denny Reading Test, Form A). Form B of the Nelson Denny Reading Test was administered as a final test to a group of 14 freshmen women with popular music as distraction, to a group of 17 women with classical music as a distraction, and a group of 19 women, a control group, without any distraction. The tests were administered on three successive afternoons when the greatest number of the subjects would be free. The volume of the phonograph was predetermined by a group of judges, including students, and regulated to approximately the same loudness which the subjects ordinarily maintained when

studying with the radio as background. The pretest averages and final test averages of the group were compared and the significance of these differences noted. Results indicated that popular music distracted a group of subjects significantly on the paragraph section of the Nelson-Denny Reading Test. Classical music showed no evidence of distraction in either the vocabulary or paragraph sections of the test, nor did popular music show evidence of distraction upon vocabulary. The researchers suggest that because classical music has subtle rhythms and hidden melodies it may not be listened to as closely by the students; whereas, popular music's simpler and more obvious rhythms and melodies are more easily grasped by a group of subjects. Thus the researchers concluded this type of music may be listened to more closely by students; and, as a result, their attention is diverted from the task at hand, especially with higher level tasks like comprehension. In a similar study, Freeburne and Fleischer (1952) conducted a study to determine whether specific types of nonvocal musical (classical, semi-classical, popular and jazz) had any significant effect upon reading speed and level of comprehension, and whether speed and comprehension in the presence of music were functions of intelligence. Two hundred eighty-three students in eight classes of introductory psychology were randomly assigned to five groups used in the study: Group I - control: Group II - reading with classical music as distractor; Group III - reading with popular music as distractor; Group IV - reading with semi-classical music as distractor; and Group V - reading with jazz music as distractor. Recorded music in an adjoining room was playing as the subjects entered the reading room and continued for a brief time after the conclusion of the 30-minute reading period. The volume was at a moderate level. Prior to reading, the subjects were told that the study involved reading speed and comprehension, and that there were other activities going on in the building

at the time. The subjects were then asked to read material from the Robinson-Hall Test for Reading Ability (History: Form - Russia). Material was added to this section on Russian history to ensure that students could not possibly read the entire passage within a 30-minute time-period. At the end of the 30 minute period, students were asked to mark the line being read when time was called. Following the reading, the students were asked to answer 50 mimeographed true-false questions. This comprehension test was scored by subtracting the number wrong from the number correct. In addition, they were asked to indicate on their question forms, after reading was completed and the comprehension test had been taken, whether anything going on in the building was annoying to them while studying. The mean rates of reading of each group were compared with mean comprehension scores. Results indicated that there were no significant differences in the performance of the groups, except that the jazz group read significantly faster than the control group. In answering the question regarding whether or not the rate of reading and reading comprehension in the presence of music was a function of the subject's intelligence, subjects in each group were divided into three levels of intelligence on the basis of their ACE percentile rankings. These levels were as follows: from the first to the thirty-third percentile, inclusive; from the thirty-fourth to the sixty-seventh percentile, inclusive; and from the sixty-eighth to the hundredth percentile, inclusive. This information was then compared to the mean rate and comprehension scores for the subjects so classified. The results revealed that there was no significant relationship between level of intelligence and the influence of music distraction upon either rate of reading or reading comprehension.

Hall (1952) conducted a study investigating the effect of background music on the reading comprehension of 278 eighth and ninth grade students. These students participated in the experiment during their regularly scheduled study hall period. There were five study hall periods during which students were tested.

Two-hundred forty-five students took one form of the Nelson Silent Reading Test, Vocabulary and Paragraph (Grades 3 - 9, Forms A and B) with background music. The alternate form was administered without such music. A control group of thirty-three subjects took both forms of the test without music. To eliminate the effect of familiarity with background music, some groups had background music with the first test, while others had music during the second test. The music was selected according to the standards prescribed for music used in industrial settings and the volume level was also measured and controlled according to those standards. The results indicated that almost 58 percent of the 245 students tested (exclusive of the control group) showed an increase in score when the test was administered with background music. By comparing the mean of the test results among the different class periods, the difference in means showed a substantial gain with background music during the first morning period and during the first and second afternoon periods. Over 67 percent of the students in these periods showed an increase in score with music background. In addition, by comparing intelligence rating by percentile ranks with the mean of the test results of each student, those ninth-grade students whose intelligence rating was in the lowest quartile of the percentile rank, were highest in the amount of improvement with background music. Of the eighth grade students, 55.56 percent of those students whose achievement tests ranked them in the lower half of the class, scored higher with background music.

Thus, Hall made these conclusions: (1) that within certain limitations, substantial aid to reading comprehension results from the use of background music at the eighth and ninth grade levels; (2) that background music does not necessarily increase the basic capabilities of the individual but it does aid him to perform to the full extent of such capabilities; (3) that background music is of greatest aid to reading comprehension at times of day similar to those times found to aid production in industry (e.g. for early morning settling down periods and to help mid-afternoon fatigue); (4) that those students who are below average in intelligence and achievement received more benefits from a musical background than those above average.

Wheeler and Wheeler (1952) conducted an investigation to study the relationship between music reading and language reading abilities. Two hundred forty-three pupils in the fifth and sixth grade served as subjects for the study. Their test results from the Progressive Reading Tests, Form A, measuring vocabulary and comprehension skill, were obtained from the permanent school records of the pupils and their music reading skill was determined by the Knuth Achievement Test in Music. Also, the subjects' intelligence scores were obtained. The type and length of private music study was determined for each pupil. No sex difference was found in music reading, and only a minor difference, statistically insignificant, was found in the reading test scores. The mean achievement on music reading and language reading tests for all children and for a selected group of those making scores of four and above on the Knuth Test were compared. The results indicated that achievement in music reading is much lower in respect to grade norms than achievement in language reading. In addition, the

relationship between music reading ability and language reading ability was determined. The results indicated a low positive correlation between music reading and language reading. Wheeler and Wheeler concluded that no prediction (i.e. the student who is a good reader in language will be a good music reader, or vice versa) can be made on the basis of these correlations. In other words, the correlations were too low to warrant an assumption that the skills involved in music reading are clearly related to language reading skills.

Schuster and Vincent (1980) report results obtained when using the Suggestive Accelerative Learning and Teaching (SALT) method, developed by Dr. Georgi Lozanov, with learning disabled students. Music was used in the classroom at the beginning and end of class to relax and calm the students. The teacher also used visual imagery along with the music to help students learn new material. Students showed significant gains in both reading and math after one year in the program. Their average math gain was 1.4 years, and the average reading gain was 2.2 years. Students were also found to have increased self-concepts and better feelings toward their education.

Practical Application Articles. A few articles were found that provided educators with helpful hints or suggestions in using music to teach reading. Harp (1988) discusses a five-step instructional strategy based on a Michigan Program for teaching reading through music, specifically songs and singing.

Klink (1975) also believes that song lyrics can be an effective means of familiarizing children with written materials, developing comprehension skills in a meaningful context and developing word recognition skills as children follow song lyric sheets while listening to the music. He provides suggestions for using music to teach

reading, for example, he suggests that teachers design worksheets to accompany lyric sheets, providing students with the needed practice on skills such as vocabulary, comprehension, and phonics.

Newsom (1979) suggests the use of popular music to motivate remedial readers. She implemented a program which utilized popular songs. Students were given song sheets with printed lyrics, and were instructed to read along silently while the accompanying music was played. Students also completed related vocabulary and comprehension exercises. Newsom found that this program increased students' vocabularies, reading fluency, and comprehension. The program also eliminated attitudinal and motivational problems, and fostered more independent reading by students.

Mateja (1982) suggests the use of the musical cloze teaching method as a way of helping students develop vocabulary and knowledge of the semantic and syntactic interactions of language. Musical cloze is a strategy that helps students to increase their language abilities, especially their use of context clues, by involving them in many kinds of cloze formats (omissions of rhyming words, verbs, paradigmatic responses, etc.), and discussions with a teacher who will provide scaffolding on which to build such skills.

With respect to the use of music to affect reading ability, the literature is inconclusive and multi-dimensional. Theoretical, actually quasi-theoretical, articles and practical essays to teachers seem to ignore research findings. On the other hand, the research itself is scattered and inconclusive. For example, in examining the experimental research available on the relationship of reading and musical abilities, Groff (1977)

found that most studies indicated a nonsignificant relationship. Studies which did indicate a significant positive correlation were criticized for experimental design (i.e. lack of a control group, lack of adequate randomization, problems with internal and external validity and reliability, lack of a sufficient number of subjects). Thus, Groff concluded that it is inappropriate at present to expect that the teaching of music will aid in the teaching of reading. There appears, though, to be some evidence that listening to music while reading may affect performance depending upon the kind of music used.

Oral Language and Music

Theoretical Articles. Wright (1977) discusses the value of music as a motivational aid in teaching certain aspects of language arts. She states that music can be a positive aid in the development of language and the many skills and facets that it encompasses. In reviewing the literature on the effects of music on language abilities, she draws several conclusions. First, music is useful in language development, reading readiness skills, and a potential aid in a reading program. Aural and visual discrimination are strengthened through pitch, timbre, proper pronunciation, expansion of vowels, syllabication, note reading, differences in note values, and interpretations. Second, songs provide an unlimited source for teaching children since the texts of most songs can provide numerous activities dealing with speech patterns, sounds, grammar, letter recognition, and other language and reading skills. Finally, music encompasses recall, recognition, rhythm, oral and written expression, word games, movement, coordination, speech, language, dramatic play and drama. She states that music links the five senses and gives any child a better feeling for language.

Jalongo and Bromley (1984) believe that imitation is one of the ways in which language develops naturally, and that all children, whether possessing different, delayed, or advanced oral language, use imitation in the course of developing linguistic competence. Thus, imitation can facilitate both language comprehension and independent language production. As a result, they suggest the use of picture books based on song lyrics as an instructional resource that can promote the child's natural ability to imitate the rhyme and rhythm of a musical score. They state that song picture books hold special appeal for children of all ages because of their potential for involvement, and their musical dimension provides a unique component for developing children's linguistic competence. They discuss various ways in which song picture books can be utilized with children who have special language needs, specifically children who speak a dialect, who have language delays or moderate language disorders, or are linguistically advanced or gifted.

Research Reports. No studies were found which discussed the effects of music on language arts abilities nor the relationship between music and language arts abilities.

Practical Application Articles. Mc Carthy (1985) suggests that the special qualities of music extend beyond the written or spoken word. The components of music such as rhythm, melody, harmony, dynamics, form, and mood add qualities that can aid the teacher in promoting language development. For example, because action songs are highly repetitive and melodically simple, they help build good listening, speaking and singing skills that are the basis for reading ability.

He illustrates various ways in which song lyrics of a folk song, "Billy Boy", can be used to develop word recognition skills, comprehension, reading study skills, and literary appreciation.

Murphy (1987) describes and discusses the music activities he used in teaching English as a second language and examines reasons for the success of the approach used in two of his programs. In one program, children, ages 7 - 17, in an international summer camp learned English through songs and other music related activities. The second program was an adult education class in which music appreciation was taught entirely in English to non-native speakers.

He suggests that because the topic of music is already motivating in itself, an interest in music and related movement becomes a strong motivator for language learning. He concludes that music as a topic of study and the use of music to stimulate awareness to language can provide students with meaningful language learning activities and experiences.

Baechtold and Algier (1986) hold that the rhyme, rhythm, and repetition in a musical context can facilitate learning and enhance memory. They set limericks and rhymes, which taught the meanings of identified vocabulary words, to the instrumentals of well-known songs. Students then sang the songs aloud in class. It was found that this technique not only increased students' memory of the vocabulary, it also increased their motivation to learn.

The literature on how to use music in the language arts curriculum appears to be scattered and inconclusive. Particularly of concern is the total lack of research in the area, with the exception of writing, which will be dealt with in the next section.

Writing and Music

Theoretical Articles. Resch (1984) discusses the similarities between the Suzuki method of music instruction and process writing, thus indicating a possible relationship shared by these two mediums of communication. The six similarities he discusses are as follows: (1) both methods stress the belief that every child can be a musician or a writer; (2) both methods tell learners that they can do "the real thing" and do it very well; (3) in both methods students learn from one another; (4) teachers become fellow participants in the learning process; (5) fundamentals are learned but do not occupy a central place in instruction and; (6) both methods emphasize the importance of parental involvement in the learning process.

Karnowski (1986) states that young writers use everything they know about communicating in oral language, art, music, and drama to make sense of the writing process and to communicate to an audience. She further notes that research suggests that young children convey meaning to others using many different communication systems, and that they use what is known about one system to support the understanding of another system. As a result, teachers should create social environments in which children are free to use oral language, art, music, and drama to explore and enhance their writing and thus encourage young children to use their full communication potential.

Research Reports. Donlan (1975) conducted a study to measure the effect of four types of music upon the spontaneous writing of high school students. Fifty students from two intact classrooms listened to four 2-minute musical passages. Two selections were classical orchestral (one familiar and one unfamiliar) and two selections were popular rock (one familiar and one unfamiliar). Students were asked to free write while listening to each selection.

From the 50 sets of essays a subset of 20 was sampled for content analysis. Three patterns were identified: patterns of tone, genre, and style. For each pattern a particular coding system was devised. This coding was used in analyzing the content of students' writings. Findings indicated that most students had a positive attitude when writing to music, but the attitude was less positive when students wrote to unfamiliar music. Free association was the most popular form used in all four exercises. However, with unfamiliar music, it was found that students had a greater tendency to make editorial judgments and direct descriptions about either the music or the assignment. With regards to style, listing tended to be the most popular. Finally, of the 20 sets of essays, 15 exhibited recurring content patterns, thus suggesting that the content of the students' writing may have been more influenced by the first musical selection than by the other three. Donlan concluded the following: (1) In writing spontaneously to music, students tend to write disjunctively. He states that there were almost no cases in which students wrote a consistent description with a central idea, or told a story that was internally consistent. (2) Students tend to react against unfamiliar vocal music when it accompanies their writing. (3) Music influences the attitudes, style, and genre of

student writing, but the recurrence of content patterns may suggest that students are influenced primarily by the first musical selections as students had a tendency to maintain patterns of writing despite changes in music.

Donlan (1976) conducted another study, consisting of two phases, investigating the effect of four types of music on the spontaneous writings of high school students. The four types of music included orchestral familiar, orchestral unfamiliar, vocal familiar and vocal unfamiliar. A placebo selection was also added as a warm-up.

In phase one of the study, fifty students from two intact classrooms at a local high school served as subjects. The students in both classes were a mixture of juniors and seniors, heterogeneously grouped. The investigator was introduced to the classes as a guest speaker presenting a multi-media demonstration.

Students in both classes were given a sheet of notebook paper and asked to divide it into five sections. They were told that they would hear five recorded musical selections and that they were to write whatever they wanted while the music was playing. They were asked not to write before the music played nor after the music stopped. At the conclusion of the writing exercises, the students were asked to count up the number of words for each of the five written passages, and excluding the placebo selection, select the two pieces of writing they liked best, one from the orchestral selections and one from the vocal selections.

The students' writings were evaluated in terms of quantity and quality. Quantity was determined by mean scores of word counts and quality by the following binary distribution: best writing (1) and worst writing (2).

The following generalizations were tentatively drawn from the study: (1) The quality and quantity of students' spontaneous writing is affected by music as a stimulus. (2) With respect to quantity, only music that is vocal and unfamiliar appears to have an inhibiting factor on student writing. (3) With respect to quality, as judged by the students themselves and correlated with those judgments of an independent evaluator, only music that is vocal and unfamiliar appears to have an inhibiting factor on students' writing. (4) Students make accurate judgments as to the relative quality of their spontaneous writing.

Since the first phase of the study suggested that unfamiliar vocal music interfered with both the quality and quantity of student writing more than did familiar vocal music or any type of orchestral music, the investigator conducted a second study which involved determining the effect of four types of unfamiliar vocal stimuli on students spontaneous writing. The four types of unfamiliar vocal selections used were popular foreign language vocal, one popular English language vocal, one classical foreign language vocal, and one classical English language vocal. As in the first phase, a placebo selection was incorporated and functioned as a warm-up.

Sixty tenth grade students from two intact classrooms at a local high school served as subjects. The administration of the second phase of the study was almost

identical to that of the first phase. At the conclusion of the writing exercises the students were asked to select two pieces of music they liked best: one choice from the foreign language vocal selections and one choice from the English language vocal selections. Unlike the first phase, the investigator counted the number of words for each essay to determine the mean scores. An independent evaluator assigned binary codes (1 & 0) to the "best-worst' writings of each pair of essays.

The results indicated the following: (1) In both classes, students wrote more to an unfamiliar foreign language vocal stimulus than to an unfamiliar English vocal stimulus. (2) Students wrote less to a classical than to a popular unfamiliar vocal stimulus. (3) Contrary to investigator's expectations, there was no difference in the number of students writing with higher quality to an unfamiliar foreign language vocal stimulus. (4) Contrary to investigator's expectations, the number of students writing with higher quality to an unfamiliar classical vocal stimulus was less than that to an unfamiliar popular vocal stimulus.

Ball and Stafford (1986) conducted a study project which involved using music and the visual arts as stimuli in the teaching of short story writing. The main objectives were to improve student awareness and appreciation of the elements common to art forms and to increase the use of these elements in creative writing. Other objectives included the improvement of descriptive, narrative, and critical writing skills, the production of simple art works as concrete expressions of abstract ideas, increased usage of the vocabulary of art and music, and the increased appreciation of classical music and the visual arts.

Two writing lab classes formed the experimental group (Group I) and two other classes formed the control group (Group II). All students in the classes were seniors in their last semester of class work. The groups were alike in their attitude toward art and music according to an attitude scale given previously to instruction. However, the control group's overall grade point average was slightly higher than that of the experimental group.

All students were taught via the Arkansas Writing Project; however, the experimental group was instructed using visual arts and music as stimuli for creative and critical writing. In addition, this group received instruction and practice in designing art composition and in portraiture. The control group received no instruction in music and art appreciation, and did not listen to music or view the art. The control group, therefore, had more time for class discussion and practice with various short story elements and concepts.

Each student in both groups turned in short stories which were later typed, assigned a code number, and distributed to readers. Three readers read and evaluated each short story: the writing teacher, a member of the community, and an English teacher. These three scores were averaged for an overall score. The short story averages were compared statistically, and results indicated that short stories from the experimental group were of significantly higher quality than those of the control group, in spite of the fact that the grade point average of the control group was higher than that of the experimental group.

The researchers concluded that the project increased the enjoyment and interest of the students involved and greatly increased the quality of fiction writing because students had a starting point for their stories and a better understanding of the elements that comprised good writing.

Practical Application Articles. Donlan (1974) believes that there are three principal benefits of having music integrated into the language arts curriculum: (1) music provides an artificial environment that can stimulate creative expression; (2) music can be studied as a form of literature; and (3) music can be used as a student's personal medium for self-expression. He discusses various instructional strategies that teachers can utilize to achieve these three benefits.

Cardarelli (1979) discusses several ways that music can be used to stimulate students' creativity. He holds that music can increase mental imagery, and can be used during creative writing activities. He also suggests that class discussions which follow the playing of musical selections can help develop student creativity and motivation.

Implications for Further Research and Theory Building

As has been shown in this review of literature, the effect of music on the reading and language arts processes of students remains unclear. Although a number of educators have attempted to build theories that justify the use of music in reading and language arts classrooms, the theories do not appear to be grounded firmly in research.

These theories contain the same conjectures, assertions and recommendations that occur in the practical application articles. In addition, the research studies that have been conducted are few and random in that they do not build on one another's findings and conclusions. Serious continuing research and development in the area of integrating music with reading and language arts education should proceed from a coherent theory that accounts for how music affects the cognitive and affective processes used in oral language, reading, and writing activities. Once this theory is developed, carefully replicated research should be conducted to determine which musical variables (e.g., tone, tempo, form) affect reading (speed and comprehension) and writing (fluency, style, content, and structure.)

Given the large numbers of students in the nation's schools possessing inadequate literacy skills, any innovative method of teaching that could enhance the reading and language abilities would be welcome. Use of music in reading and language arts classrooms has the potential for effectiveness. Potential is the operative word, since considerable research needs to be done to establish the connections between how students process music and how this process interacts with reading and writing.

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